

CLAIMS

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What is claimed is:

1. A method for the real-time tracking of goods in a supply chain, including:
 - 5 affixing a tag to each good to be tracked and/or to each conveyance used to store or carry the goods;
 - marking the location of one of the goods at a data appliance and storing information on said location at a site server coupled to said data appliance;
 - uploading said location information to a data center, said data center coupled to said site server; and
 - charging users of said supply chain a fee dependent on the number of tracked goods to access said data center and view reports compiled using said location information regarding each tracked good.
2. The method of claim 1, further including aggregating one or more of said goods into a conveyance at a data point and wherein said marking includes indicating an aggregation event occurred at said data point.
3. The method of claim 2, wherein said marking further includes performing aggregation-by-inference, wherein an aggregation event occurring at said location for a conveyance automatically indicates that said conveyance has been completely filled with items.

4. The method of claim 2, further including performing de/aggregation-by-inference at a second data point, wherein a de-aggregation event indicating that all items have been removed from said conveyance is generated.

5 5. The method of claim 1, wherein said tag affixed to said one of the goods is a Radio Frequency Identification (RFID) tag and said marking includes scanning said tag affixed to said one of the goods using an RFID reader.

6. The method of claim 1, wherein said one of the goods is stored in one of said conveyances, and said marking includes scanning said tag affixed to said one of said conveyances using a reader.

7. The method of claim 1, wherein said marking includes scanning a tag using a tag reader.

8. The method of claim 7, wherein said tag reader is coupled to a data appliance.

9. The method of claim 7, wherein said tag reader is part of a data appliance.

10. The method of claim 1, wherein said marking includes tracking said one of the goods 20 using global positioning satellite (GPS) technology.

11. The method of claim 1, wherein said storing utilizes the Universal Data Appliance Protocol (UDAP) to communicate said location information from said data appliance to said site server.

5 12. The method of claim 1, further including said accessing said data center and viewing said reports.

10 13. The method of claim 1, further including aggregating a good into a conveyance when said good is loaded into said conveyance and de-aggregating said good from said conveyance when said good is unloaded from said conveyance.

14. The method of claim 1, further including compensating for mistakes in said marking by creating tag reads at said data center for missing tag reads.

15. The method of claim 14, wherein said compensating includes detecting that said missing tag read occurred by learning that a tag read was made on said good at a first location and at a third location, but not at a second location, wherein said good could not arrive at said third location without first passing through said second location.

20 16. The method of claim 1, further including filtering out any duplicative tag reads.

17. A method for the real-time tracking of goods in a supply chain, including:

affixing a tag to each good to be tracked and/or to each conveyance used to store or carry the goods;

marking the location of one of the goods at a data appliance and storing information on said location at a site server coupled to said data appliance;

5 uploading said location information to a data center, said data center coupled to said site server; and

charging users of said supply chain a fee per transaction to access said data center and view reports compiled using location information regarding each tracked good, each transaction including a single tag read.

18. The method of claim 17, further including aggregating one or more of said goods into a conveyance at a data point and wherein said marking includes indicating an aggregation event occurred at said data point.

19. The method of claim 18, wherein said marking further includes performing aggregation-by-inference, wherein an aggregation event occurring at said location for a conveyance automatically indicates that said conveyance has been completely filled with items.

20. The method of claim 18, further including performing de-aggregation-by-inference at a second data point, wherein a de-aggregation event indicating that all items have been removed from said conveyance is generated.

21. The method of claim 17, wherein said tag affixed to said one of the goods is a Radio Frequency Identification (RFID) tag and said marking includes scanning said tag affixed to said one of the goods using an RFID reader.

5 22. The method of claim 17, wherein said one of the goods is stored in one of said conveyances, and said marking includes scanning said tag affixed to said one of said conveyances using a reader.

23 The method of claim 17, wherein said marking includes scanning a tag using a tag reader.

24. The method of claim 23, wherein said tag reader is coupled to a data appliance.

25. The method of claim 23, wherein said tag reader is part of a data appliance.

26. The method of claim 17, wherein said marking includes tracking said one of the goods using global positioning satellite (GPS) technology.

27 The method of claim 17, wherein said storing utilizes the Universal Data Appliance Protocol (UDAP) to communicate location information from said data appliance to said site server.

28. The method of claim 17, further including said accessing said data center and viewing said reports.

29. The method of claim 17, further including aggregating a good into a conveyance when said good is loaded into said conveyance and de-aggregating said good from said conveyance when said good is unloaded from said conveyance.

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30. The method of claim 17, further including compensating for mistakes in said marking by creating tag reads at said data center for missing tag reads.

31. The method of claim 30, wherein said compensating includes detecting that a missing tag read occurred by learning that a tag read was made on said good at a first location and at a third location, but not at a second location, wherein said good could not arrive at said third location without first passing through said second location.

32. The method of claim 29, further including filtering out any duplicative tag reads.

33. A system for real-time tracking of goods in a supply chain, including:

a data center;

one or more site servers coupled to said data center;

one or more data appliances, each of said data appliances coupled to one of said site

20 servers;

one or more tags, each of said tags affixed to a good or conveyance in a way such that they may be read by tag reader coupled to or part of said data appliances; and

one or more users coupled to said data center via the World Wide Web, wherein each of said users are charged a fee per good tracked to access said data center and view reports compiled using location information regarding each tracked good

5 34. The system of claim 33, wherein said tags and tag readers both utilize RFID technology.

35. The system of claim 33, further including an Intransit Data Appliance (IDA) and an Enterprise Server, said Enterprise server coupled to said data center and said IDA coupled to said Enterprise Server to transmit data on the location of a good or conveyance using Global Positioning Satellite (GPS) technology.

36. A system for real-time tracking of goods in a supply chain, including:
a data center;
one or more site servers coupled to said data center;
one or more data appliances, each of said data appliances coupled to one of said site servers;

one or more tags, each of said tags affixed to a good or conveyance in a way such that they may be read by tag reader coupled to or part of said data appliances; and

20 one or more users coupled to said data center via the World Wide Web, wherein each of said users are charged a fee per transaction to access said data center and view reports compiled using location information regarding each tracked good, each of said transactions including a tag read.

37. The system of claim 36, wherein said tags and tag readers both utilize RFID technology.

38. The system of claim 36, further including an Intransit Data Appliance (IDA) and an Enterprise Server, said Enterprise server coupled to said data center and said IDA coupled to said 5 Enterprise Server to transmit data on the location of a good or conveyance using Global Positioning Satellite (GPS) technology.

39. A system for real-time tracking of goods in a supply chain, including:
a collaboration center;
one or more data centers coupled to said collaboration center;
one or more site servers coupled to said data center;
one or more data appliances, each of said data appliances coupled to one of said site servers;
one or more tags, each of said tags affixed to a good or conveyance in a way such that they may be read by tag reader coupled to or part of said data appliances; and
one or more users coupled to said data center via the World Wide Web, wherein each of said users are charged a fee per good tracked to access said data center and view reports compiled using location information regarding each tracked good.

20 40. The system of claim 39, wherein said tags and tag readers both utilize RFID technology.

41. The system of claim 39, further including an Intransit Data Appliance (IDA) and an Enterprise Server, said Enterprise server coupled to said data center and said IDA coupled to said

Enterprise Server to transmit data on the location of a good or conveyance using Global Positioning Satellite (GPS) technology.

42. A system for real-time tracking of goods in a supply chain, including:

5 a collaboration center;

one or more data centers coupled to said collaboration center;

one or more site servers coupled to said data center;

one or more data appliances, each of said data appliances coupled to one of said site servers;

10 one or more tags, each of said tags affixed to a good or conveyance in a way such that they may be read by tag reader coupled to or part of said data appliances; and

one or more users coupled to said data center via the World Wide Web, wherein each of said users are charged a fee per transaction to access said data center and view reports compiled using location information regarding each tracked good, each of said transactions including a tag read.

15 43. The system of claim 42, wherein said tags and tag readers both utilize RFID technology.

20 44. The system of claim 42, further including an Intransit Data Appliance (IDA) and an Enterprise Server, said Enterprise server coupled to said data center and said IDA coupled to said Enterprise Server to transmit data on the location of a good or conveyance using Global Positioning Satellite (GPS) technology.

45. A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for the real-time tracking of goods in a supply chain, the method including:

affixing a tag to each good to be tracked and/or to each conveyance used to store or carry

5 the goods;

marking the location of one of the goods at a data appliance and storing information on said location at a site server coupled to said data appliance;

uploading said location information to a data center, said data center coupled to said site server; and

10 charging users of said supply chain a fee dependent on the number of tracked goods to access said data center and view reports compiled using location information regarding each tracked good.

46. A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for the real-time tracking of goods in a supply chain, the method including:

affixing a tag to each good to be tracked and/or to each conveyance used to store or carry the goods;

marking the location of one of the goods at a data appliance and storing information on 20 said location at a site server coupled to said data appliance;

uploading said location information to a data center, said data center coupled to said site server; and

charging users of said supply chain a fee per transaction to access said data center and view reports compiled using location information regarding each tracked good, each transaction including a single tag read.

PRINTED IN U.S.A. - 04/2019